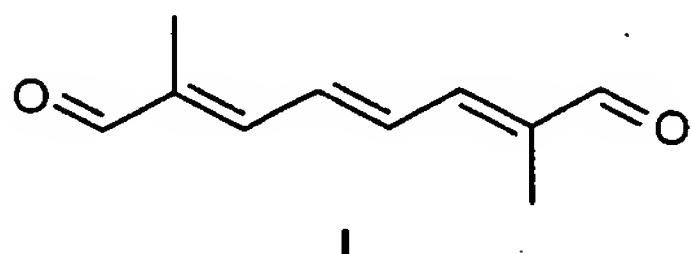


We claim:

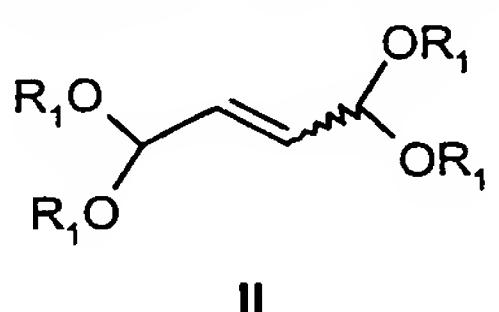
1. A process for preparing 2,7-dimethylocta-2,4,6-trienedial of the formula I,



5

by

a) double enol ether condensation of a butenedial bisacetal of the formula II



10

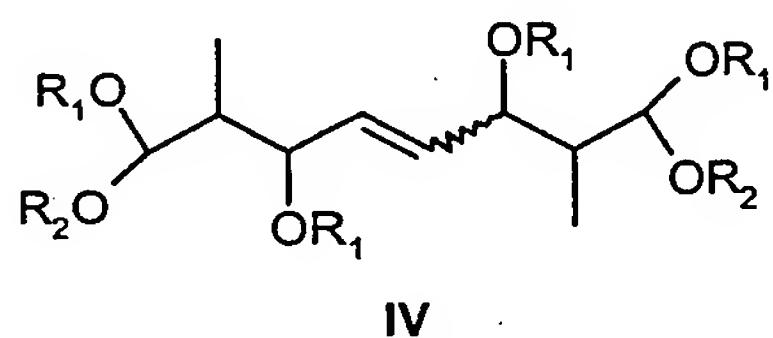
with an enol ether of the formula III,



III

15

in the presence of a Lewis acid catalyst to give a condensation product of the formula IV,

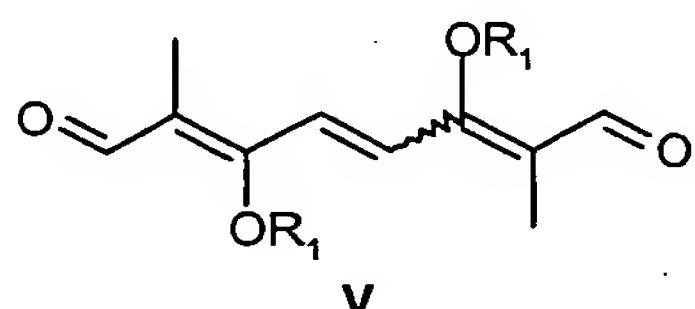


20

where the radicals R₁ and R₂ in formulae II to IV are independently of one another C₁-C₆-alkyl;

b) hydrolysis of the acetal groups of IV by adding an aqueous acid to form the dialdehyde of the formula V;

25



- c) conversion of V into the dialdehyde I by reacting with an aqueous base and
- d) crystallization of I from the reaction mixture,

5 Wherein process steps a) to d) are carried out in the presence of an inert, water-immiscible organic solvent.

10 2. The process according to claim 1, wherein toluene is used as solvent in all of process steps a) to d).

15 3. The process according to claim 1 or 2, wherein the double enol ether condensation in process step a) is carried out in the presence of $ZnCl_2$, BF_3 etherate or $FeCl_3$ or of mixtures thereof.

20 4. The process according to claim 3, wherein anhydrous $FeCl_3$ is employed as Lewis acid catalyst.

25 5. The process according to any of claims 1 to 4, wherein aqueous sulfuric, nitric, phosphoric or hydrohalic acid or mixtures thereof are employed for the acetal cleavage in process step b).

30 6. The process according to claim 5, wherein aqueous sulfuric acid is used.

25 7. The process according to any of claims 1 to 6, wherein aqueous solutions of alkali metal or alkaline earth metal hydroxides, carbonates or bicarbonates are employed for the elimination reaction in process step c).

30 8. The process according to claim 7, wherein an aqueous sodium bicarbonate solution is used.